

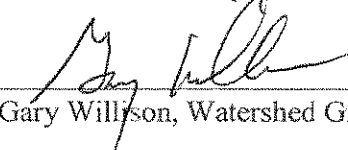
Wayne National Forest
Review of New Information
For
White-Nose Syndrome and Bat Populations

May 2008


Review of New Information Analysis Reviewed by:


Carleen Yocum, Operations Group Leader

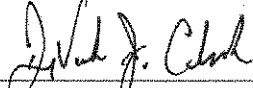
5/28/08
Date


Gary Willison, Watershed Group Leader

5-29-08
Date


Ann Grasso, Administrative Group Leader

5/29/08
Date

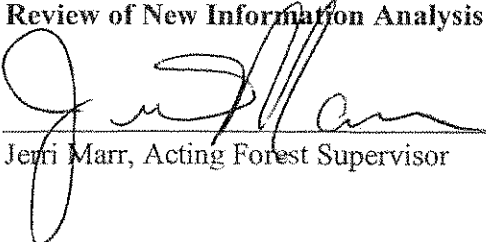

DeVela Clark, Athens District Ranger

5/29/08
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Steve Marchi, Acting Ironton District Ranger

5-29-08
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Review of New Information Analysis Approved by:


Jerri Marr, Acting Forest Supervisor

5/29/08
Date

Wayne National Forest

Review of New Information for White-Nose Syndrome and Bat Populations

Introduction

The intent of this review is to provide a reasoned analysis of recent information on White-nose Syndrome (WNS) and its relevance to ongoing and pending projects implementing the Wayne National Forest Land and Resource Management Plan (Forest Plan). This documentation provides the decision maker a guide for reviewing environmental information that was not available when the 2006 Forest Plan became effective and subsequent management activities were analyzed.

Summary of Findings

The ID team has considered the best scientific information available with regard to WNS and bat populations. It is our determination that the discovery of the WNS in New York, Vermont, Massachusetts and Connecticut does not present a seriously different picture with regard to the environmental effects disclosed in the Environmental Impact Statement for the 2006 Forest Plan or any site specific environmental documentation. There is therefore no need at this time to supplement, revise, or correct the Environmental Impact Statement for the 2006 Forest Plan or project-specific environmental documents.

This analysis also documents our determination that the discovery of WNS does not present a seriously different picture with regard to development of the 2006 Forest Plan. The ID team examined the Forest Plan and found that based on the available information, there is no need to amend or revise the 2006 Forest Plan to address the threat of WNS at this time. The direction and information contained in the 2006 Forest Plan are adequate to aid in the recovery of the Indiana bat and to conserve other bat species in the planning area.

Background

Biologists and researchers from around the country are working to identify and understand a fungus found on hibernating bats that appears to be associated with the death of thousands of hibernating bats in New York, Vermont, Massachusetts and Connecticut (http://www.fws.gov/northeast/white_nose.html). The cause of the bat deaths, as well as the origin and transmission of the fungus, is unknown at this time. Bats with WNS may exhibit a white fungus that is found around the muzzles of affected bats, and/or they may exhibit unusual behaviors such as flying outside during the day in temperatures at or below freezing, or clustering near the entrance of a hibernaculum.

Biologists, researchers and laboratories are working to identify the pathogen, or other causal agent, to determine the cause of bat deaths. They hope to soon discover whether the fungus itself plays any role in the recent increase in bat mortality in certain caves in New York, Vermont, Massachusetts and Connecticut, or is merely a symptom. At

present, WNS has not occurred in any hibernaculum on National Forest System (NFS) lands in those states or elsewhere.

White-nose syndrome was first detected at caves and mines in New York during the winter of 2006/2007, where it is believed to be associated with the deaths of approximately 8,000 to 11,000 bats. During the 2007/2008 winter, WNS was again found at the previously infected New York sites, and has spread to several other sites there as well as in Vermont, Massachusetts and Connecticut.

Because it is not known how WNS spreads, the state wildlife agencies have asked cavers in New York, Vermont and Massachusetts to avoid entering caves and mines until more information is available. No impacts to humans have been reported to date.

Wildlife managers are concerned about the outbreak because some bats congregate by the thousands in caves and mines to hibernate during winter months. This behavior increases the potential that WNS will spread among hibernating bats. In addition, hibernating bats disperse in spring and migrate, sometimes hundreds of miles away, to spend the summer in smaller colonies.

Most bats affected to date are little brown bats, but WNS has also been found on endangered Indiana bats, raising concerns about the impacts on a species already at risk. Other affected bat species include the eastern pipistrelle and the northern long-eared bat.

The focus of current efforts among conservation agencies and organizations is on determining the cause of bat mortality. Until the cause is known, it is not possible to determine how the ailment is spread and evaluate possible treatments. The U. S. Fish and Wildlife Service is in close communication with the states of New York, Vermont and Massachusetts, where biologists are investigating the geographic extent of the outbreaks and collecting samples of affected bats. Several university and government laboratories are coordinating their efforts to analyze samples to help determine the cause of the bat deaths. Private laboratories have also offered assistance.

In addition, the U. S. Fish and Wildlife Service is developing a geographic database to track the location of affected sites, and collect information on each site, such as the number of bats affected. This information will be critical in tracking the extent and spread of WNS and in coordinating research efforts.

Ohio Information

To date, this syndrome has not been found in Ohio. It has not been found in the adjoining states of West Virginia, Kentucky, Indiana, or Michigan. The WNS has not been found in Pennsylvania, but surveys of several caves in Pennsylvania have found a few bats with a white fungus. However, Pennsylvania scientists do not believe this white fungus to be associated with WNS because there were no bats in poor condition, no dead bats have been found, and no abnormal behavior has been observed (e.g., flying during the middle of the day) (B. Nelson, pers. comm.)

Species Evaluated in this Analysis

Indiana Bat

The Indiana bat is listed as endangered and is protected by the Endangered Species Act (ESA), as well as by state laws. Symptoms of WNS syndrome have been observed on Indiana bats.

The Indiana bat occurs from Wisconsin east to Vermont, south to Florida and west to Oklahoma. During winter, Indiana bats are restricted to suitable underground hibernacula. The vast majority of these sites are caves located in karst areas of the east-central United States; however, Indiana bats also hibernate in other cave-like locations, including abandoned mines.

Threats to the Indiana bat vary during its annual cycle. At the hibernacula, threats include modifications to caves, mines, and surrounding areas that change airflow and alter microclimate in the hibernacula. Human disturbance and vandalism pose significant threats during hibernation through direct mortality and by inducing arousal and consequent depletion of fat reserves. Natural catastrophes can also have a significant effect during winter because of the concentration of individuals in a relatively few sites. During summer months, possible threats relate to the loss and degradation of forested habitat. Migration pathways and swarming sites may also be affected by habitat loss and degradation.

The range-wide Indiana bat population is currently increasing (USDI Fish and Wildlife Service 2008). The 2007 winter census estimate of the population was 513,398, up from a population low of 362,194 in 1995. Approximately 1.5% of the Indiana bat population winters in Ohio.

The Indiana bat is present year-round on the Wayne National Forest (WNF).

Winter Habitat: There is no designated critical habitat for Indiana bat on the WNF. One abandoned underground limestone mine on the WNF serves as a Priority III hibernaculum for Indiana bats. There are no karst features, such as caves, on the WNF, but numerous mines are located on Federal and non-Federal lands on the Athens and Ironton Units. These mines are remnants of past underground coal and limestone mining. Entrances into the Priority III hibernaculum are closed with bat-friendly gates to prevent disturbance to bats by Forest visitors.

Data from four mid-winter hibernaculum censuses at the Priority III hibernaculum (1999-2007) show the mine harbors an average of 229 Indiana bats each winter. The population in the hibernaculum has ranged from a low of 150 to a high of 333 individuals, with 224 Indiana bats documented in February 2007. Male and female Indiana bats have been captured at the entrance to five additional underground mine openings on the Athens and Ironton Units during fall swarming surveys (1999-2007). These underground mines may serve as hibernacula or as temporary stopovers during

fall swarming. However, entry into underground coal mines is prohibited due to safety concerns; therefore, the mines have not been confirmed as hibernacula.

Forest Service and U. S. Fish and Wildlife Service biologists were inside the WNF's Priority III hibernaculum in 2007 during a mid-winter population census trip (February) and to retrieve temperature/humidity data loggers (July). The biologists did not observe any bats with unusual characteristics, or any bats exhibiting unusual behavior. No dead bats, or body parts, were found on the mine floor.

The Ironton Ranger District wildlife biologist has visited the outside entrances to the Priority III hibernaculum on two occasions during winter and spring of 2008 to look for unusual behavior, such as bats flying during non-typical times, or presence of dead bats. She saw neither (K. Kirschbaum, pers. comm.).

Summer Habitat: Female and male Indiana bats use the WNF during the summer. Maternity colonies have not been found on NFS lands during telemetry surveys conducted on the WNF. However, lactating and post-lactating females have been captured during summer surveys, which suggest the presence of at least one maternity colony in the vicinity of the WNF. Adult males have been captured and radio-tracked to summer roosts within and near the WNF.

Non-Listed Species: Eastern pipistrelles, northern long-eared bats, and little brown bats also winter in the Priority III hibernaculum and may hibernate in other underground mines. Symptoms of WNS have been observed on these species in New York, Vermont, Massachusetts and Connecticut.

Mines/Caves on the Forest

There are no caves or other karst features on the WNF. Underground coal and limestone mining occurred on the Athens and Ironton Units during the past century. After discovery of the Priority III hibernaculum, the Forest Service conducted abandoned and inactive mine surveys and identified 2,091 mine portals and subsidences to date. A total of 669 of these mine entrances have an opening at least 1 foot x 1 foot in size, the minimum size thought to allow bats entry to underground chambers. Not all of these mine portal or subsidence openings lead to suitable winter habitat for bats, but efforts are being made to document which openings do provide suitable habitat. To date, 117 mine openings have been evaluated for potentially suitable bat habitat and 40 of these have been surveyed for bats (i.e., netted at the outside entrance during fall swarming season). Of these 40 mine openings, 32 had bat activity and 8 had no bat activity.

These underground mines are not used by cavers for recreational purposes. Abandoned coal mines pose a safety risk because of the potential of harmful gases. Mines that have signs of human visitation are typically closed or gated when found.

Other Agency Actions in Ohio

The last Indiana bat winter census in the Preble Mine was conducted in 2006 (a Priority II Indiana bat hibernaculum). Although a complete census was not conducted in 2008, Dr. Virgil Brack entered the Preble Mine in 2008 to perform research work. He reported that there was no evidence of WNS during his visits (S. Selbo, pers. comm.).

The Ohio Division of Nature Preserves conducted an inventory of cave biota in Ohio in 2007-2008. There was no evidence of WNS in the caves that were surveyed (S. Selbo, pers. comm.).

Wayne Forest Plan Guidance for Bat Conservation and Habitat Management

Because WNS was not known prior to 2006, it was not considered during development of the 2006 Forest Plan. However, the importance of providing and maintaining habitat components utilized by a diversity of forest bat species was recognized as an integral part of managing the processes and functions of forest ecosystems.

Forest-wide management direction was included in the 2006 Forest Plan to conserve habitats for bats, with special emphasis on the federally endangered Indiana bat. A Conservation Plan for federally listed species was included as an appendix in the 2006 Forest Plan (Appendix D). The Conservation Plan outlines the coarse scale and fine scale actions that will be taken to conserve federally listed species, such as the Indiana bat. Actions taken to conserve the Indiana bat are expected to benefit other forest bat species. Those sections of the Conservation Plan referring specifically to the Indiana bat are included below:

Species-specific Conservation Direction and Guidance

Indiana Bat

Additional resource management direction and guidance found in the 2006 Forest Plan and should be considered during project planning and implementation, as needed, to promote recovery of this species.

Administrative & Technical Information

Preferred Indiana bat roost trees include the following species: shagbark hickory, shellbark hickory; bitternut hickory; silver maple; green ash; white ash; eastern cottonwood; northern red oak; post oak; white oak; slippery elm; American elm; black locust; pignut hickory; red maple; sugar maple; and black oak. This list of trees is based on review of literature and data on Indiana bat roosting requirements. Other species may be added, as identified.

When identifying existing Indiana bat roosting habitat (SFW-TES-10(a)), the trees that are hollow, have major splits, or have broken tops need to have characteristics that provide maternity habitat for one or more Indiana bats. In other words, these trees must possess crevices into the hollow area or where the split or broken top occurred for it to provide habitat for this species. Furthermore, trees with broken tops should be 6 inches dbh or greater where the broken top occurs.

Discovery of dead bats of undetermined species on the WNF should be reported immediately to the USFWS - Reynoldsburg Field Office, and the remains transported on ice to that office. The USFWS will make the final species determination of any dead or moribund bats found on the WNF. If an Indiana bat is identified, the USFWS will contact the appropriate USFWS law enforcement office.

No attempt should be made to handle any live bat, regardless of its condition. This does not apply to individuals who are permitted, as agents of the State, to conduct work on Federally listed bat species.

Report bats that appear to be sick or injured to USFWS - Reynoldsburg Field Office.

Protection of Individuals

Goal 5.1.1 – Retain or develop Indiana bat roosting and foraging habitat; protect all known Indiana bat hibernacula.

Objective 5.1.1a – If additional Indiana bat hibernacula are discovered on NFS land, install bat-friendly gates to prevent unauthorized entry.

SFW-TES-1 – Deter human access to areas surrounding known hibernacula by closing or relocating trails that lead to, or pass within easy viewing distance of hibernacula.

SFW-TES-2 – Establish a one-quarter mile buffer around all known hibernacula. Within this one-quarter mile buffer:

- Prohibit new trail and road construction
- Do not conduct prescribed burning during the fall swarming period (generally mid-August to mid-October) or during the hibernation period (September 15th through April 15th)
- Do not permit surface occupancy for exploration or development of Federally owned minerals
- Implement vegetation management only to maintain or improve Indiana bat roosting, swarming, or foraging habitat.

GFW-TES-3 – Establish a one-quarter mile buffer around all mine openings that are known Indiana bat fall swarming sites, but where actual Indiana bat hibernation has not been established. Reduce or eliminate human disturbances within the buffer. Implement vegetation management only to maintain or improve Indiana bat roosting, swarming, or foraging habitats.

SFW-TES-4 – Develop prescribed burning plans that specify weather conditions that would prevent smoke dispersal into known hibernacula.

SFW-TES-5 – Before backfilling any mine openings, such as portal entrances or subsidence depressions with developed openings, conduct surveys for potential bat presence during the fall swarming period (generally mid-August to mid-October).

GFW-TES-6 – Conduct pre-gating and post-gating mist net surveys at mines where bat-friendly gates are installed.

SFW-TES-13 – Prohibit the cutting of standing dead trees for firewood.

SFW-MIN-10 (and Appendix H, Stipulation 10) – Within management areas where surface occupancy is generally permitted, apply the No Surface Occupancy stipulation for Federal leases where the following conditions occur:

- Areas within ¼ mile of Indiana bat hibernacula

Appendix H, Stipulation 12 (Federal oil and gas leases) – No cutting of snags (trees with less than 10% live canopy), shagbark or shellbark hickories, or trees that are hollow and/or have major splits or broken tops, except during the bat hibernation season (September 15th – April 15th). If such trees are a safety hazard, they may be cut anytime they pose an imminent threat to human safety, but if cut in the non-hibernation season, the Forest biologist must be notified in advance. This stipulation applies only to trees over six inches in diameter.

Habitat Protection & Improvement

Goal 5.1.1 – Retain or develop Indiana bat roosting and foraging habitat; protect all known Indiana bat hibernacula.

Objective 5.1.1a – If additional Indiana bat hibernacula are discovered on NFS land, install bat-friendly gates to prevent unauthorized entry.

SFW-TES-7 – When even-aged regeneration methods are used, retain forested flight corridors within and between early successional habitat patches. These flight corridors may include forested corridors along ephemeral, intermittent, and perennial streams; and where present, clumps of snags and trees of varying size classes in the early successional habitat. When present, leave larger-sized trees on the edges of early successional patches for future maternity roosts.

SFW-TES-8 – Within hardwood cutting units with uneven-aged vegetation management prescriptions, maintain an average of at least 60 percent canopy cover.

GFW-TES-9 – Retain all shagbark and shellbark hickory trees greater than or equal to 6 inches dbh, unless removal is necessary to protect human safety or to avoid adverse impacts to steep slopes, erodible soils, floodplains or wetlands (e.g., cut a hickory rather than relocating a skid trail onto a steep slope).

SFW-TES-10 – During the non-hibernation season (April 15th – September 15th), do not cut, unless they are a safety hazard:

- a. Trees of any species 6 inches dbh or greater that are hollow, have major splits, or have broken tops that provide maternity habitat.

- b. Snags 6 inches dbh or greater that have Indiana bat roost tree characteristics.
Consider any tree with less than 10 percent live canopy to be a snag.

When removal of hazard trees is necessary in a recreation area during the non-hibernation season (e.g., developed recreation sites, access roads, trails), conduct emergence surveys at the identified hazard trees that possess the characteristics identified above, and at any hazard trees that possess large areas of loose bark providing maternity habitat.

SFW-TES-11 – Schedule any summer prescribed burning after August 15th to reduce potential effects on Indiana bat reproduction.

SFW-TES-12 – With all hardwood timber harvests, retain a minimum of 12 live trees per acre (averaged over the cutting unit) of any species that are 6 inches dbh or greater with large areas of loose bark, unless they pose a safety hazard.

In addition to these, retain live preferred roost trees, when present to provide a supply of future roost trees (i.e., large, overmature trees) as shown in the following table. Refer to the Administrative & Technical Information section above for a list of tree species preferred as roost trees by Indiana bats. Consult with the USFWS regarding exceptions that may be needed to minimize adverse effects to other resources or human health and safety.

Indiana Bat Preferred Roost Tree Size Class	Number of live trees to retain (average per acre over the cutting unit)
>20 inches (dbh)	3*
>11 in (dbh) and < 20 in (dbh)	6

*If there are few or no live Indiana bat roost trees > 20 inches dbh in the stand, retain three live trees > 16 inches dbh and < 20 inches dbh per acre (averaged across the cutting unit). If there are no live trees > 16 inches dbh, retain nine additional live trees > 11 inches dbh and < 16 inches dbh per acre (averaged across the cutting unit).

SFW-TES-13 – Prohibit the cutting of standing dead trees for firewood.

GFW-TES-14 – Provide water sources that promote aquatic insect production and provide drinking sources for Indiana bats along suitable flight paths, especially in upland areas, and off/away from recreation sites, and designated trails and roads.

Appendix H, Stipulation 12 (Federal oil and gas leases) – No cutting of snags (trees with less than 10% live canopy), shagbark or shellbark hickories, or trees that are hollow and/or have major splits or broken tops, except during the bat hibernation season (September 15th – April 15th). If such trees are a safety hazard, they may be cut anytime they pose an imminent threat to human safety, but if cut in the non-hibernation season, the Forest Service biologist must be notified in advance. This stipulation applies only to trees over six inches in diameter.

Education & Awareness

Provide refresher training to employees, as needed, to ensure proper identification of Indiana bat roosting habitat. Such training should include how to recognize potentially suitable maternity roosts from other non-maternity roost trees.

Provide training to employees on the proper methods for conducting emergence surveys.

Inventory, Analysis & Monitoring

- a. Emphasis will be placed on collecting information associated with Indiana bat recovery objectives. This may include, but is not limited to, monitoring population trends of known hibernacula; monitoring of microclimate conditions in known hibernacula, and assessing our understanding of Indiana bat winter and summer distributions on the WNF, including any maternity colonies.
- b. Monitor and report annually and evaluate every five years the answers to the following monitoring questions, as required in Chapter 4 of the Forest Plan:
 - i. How many acres of potentially suitable Indiana bat habitat were protected or improved?
 - ii. How many bat-friendly gates were installed on known Indiana bat hibernacula?
- c. The implementing regulations for incidental take require that Federal agencies must report the progress of the action and its impact on the species (50 CFR 402.14(i)). To meet this mandate, the following will be monitored and reported as follows (from the Biological Opinion):
 - i. As projects are proposed, the cumulative total of incidental take that has occurred to date under the Biological Opinion for the 2006 Forest Plan, in addition to project-specific information identified under Conservation Direction and Guidance for all Federally Listed Species (under the Administrative and Technical Information section), will be reported to the USFWS. Incidental take will be monitored using the number of acres/miles in the following table:

Activity	Measure
Permanent Road Construction & Reconstruction	392 acres
Temporary Road Construction	146 acres
Skid Trails and Log Landings	740 acres
Utility Development	50 acres
Fire Lines	750 miles

- ii. On an annual basis, the cumulative acreage of specific management activities implemented under the 2006 Forest Plan will be reported to the USFWS. The anticipated activities and acreages planned for implementation during the first decade of the 2006 Forest Plan are shown in the following table:

Activity	Acreage
Even-aged Hardwood Timber Harvest	1,725
Even-aged Pine Timber Harvest	200
Uneven-aged Timber Harvest	14,556
Thinning	1,460
Crop Tree Release	2,113
Grape Vine Control	2,683
Site Prep for Native Pine	200
Reforestation (planting)	500

Activity	Acreage
Prescribed Fire	46,215
Oak Regeneration	200
NNIS	1,500
Herbaceous Habitat	21,904
Hazardous Fuels	
Herbicide Application	10,994
Oak Regeneration	600
NNIS	
Development of Permanent Forest Openings	500
Maintenance of Permanent Forest Openings and other Herbaceous Habitats (mechanical)	5,000
Control of NNIS	1,000
Mechanical	100
Biological	
Wetland Restoration & Enhancement	150
Waterhole Construction	15
Fishing Pond/Lake Construction	15
Restoration & Improvement of Aquatic/Riparian Habitat	
Lentic	150
Lotic	20 miles
Installation of Bat-friendly Gates	20-30 gates
OHV Trail Construction	150
Hiking Trail Construction	18
Horse Trail Construction	61
Mountain Bike Trail Construction	36
Recreational Facility Construction (including Parking Lots)	60
Temporary Road Construction	146
Permanent Road Construction	74
Permanent Road Reconstruction	318
Road Decommissioning	29
Skid Trails and Landings (outside cutting units only)	740
Surface Coal Mining Activities	1,250
Reclamation of Depleted or Orphan Wells	70 (128 wells)
Oil & Gas Well Development (Federal leases only)	42 (80 wells)
Utility Corridor Development & Maintenance	50
Agricultural Crop Production & Grazing	50
Treatment of Acid Mine Drainage	270
Surface Mine Reclamation	20
Closure of Open Mine Portal/Subsidence	232
Stabilization of Disturbed Areas	100
Reduction of Hazardous Fuels (mechanical)	10,181
Land Acquisition	Up to 40,000
Land Exchange	400

- iii. On an annual basis, a tally of hickory trees that were removed during implementation of management activities to enable the project to proceed without causing adverse effects to other resources important to the Indiana bat (see GFW-TES-9) will be reported to the USFWS.

Analysis

The information currently available about WNS is not enough to accurately assess the threat of WNS in Ohio and its effect on Forest-wide and range-wide bat populations. Until we know the method by which it is spread, we cannot anticipate or predict when, if ever, it might occur in Ohio caves or mines. Until we know what WNS is, how it spreads, and how to stop it, it will be impossible to take effective action against its spread.

Bat species with documented cases of WNS are known to migrate annually. Eastern pipistrelles and northern long-eared bats normally move less than 50-60 miles in their annual migration from hibernation sites to summer roosting sites. Little brown bats and Indiana bats are known to move up to 300 miles between hibernacula and summer habitat (BCI 2001).

Genetic testing and banding data for Indiana bats suggest movement between hibernacula and summer habitat occur in four general geographic areas of the Eastern United States, suggesting population discreteness (USDI Fish and Wildlife Service 2007). In other words, this preliminary information suggests that the probability of Indiana bats from Ohio and New England to share common summer and winter roosts and interbreed may be low. At this time, the best available scientific information suggests that Indiana bats found in the Wayne National Forest likely hibernate in Ohio or south in Kentucky or Indiana (S. Selbo, pers. comm.). The WNF's boundary is over 400 miles from the nearest confirmed WNS location in New York, Vermont, Massachusetts and Connecticut. If the syndrome is passed to other species of bats and moves westward, it may take several years to get to Ohio through bat-to-bat transmission. In that time, more information will presumably be available about the cause and spread mechanism that will allow us to make better informed decisions about preventative measures and/or treatment.

During the development of the Forest Plan, the Forest Service entered into formal consultation with the U. S. Fish and Wildlife Service to determine the potential impact of 2006 Forest Plan implementation on the Indiana bat. A Biological Assessment (BA) was prepared which analyzed potential impacts to the Indiana bat and provided potential conservation measures. The U. S. Fish and Wildlife Service reviewed the BA and responded in a Biological Opinion about the effects of implementing the Forest Plan on the Indiana bat:

It is anticipated that occupied secondary roost or less important roost trees may be unknowingly cut. These trees are likely to be occupied by either singly roosting males or a few females. It is reasonable to assume that only a subset of these individuals will be directly taken through injury or death (Belwood 2002) and that most of the individuals in the occupied roost tree will escape. Although very difficult to predict, we anticipate that an unknown occupied roost tree could be cut during any of the activities identified above. The occurrence of this, however, we believe is unlikely to be more than once per activity. Thus, we anticipate that no more than 4 occupied roost trees will be incidentally taken over the next ten years.

Incidental take of Indiana bats will be difficult to detect for the following reasons: the species is highly motile; the species occurs in habitat (e.g., trees) that makes detection difficult; and finding dead or moribund bats is unlikely due to a small body size and the likely scavenging of specimens by predators. However, we believe the level of take of this species can be monitored by tracking the level of habitat modification and adherence to S&G. Specifically, if the S&G are not implemented, or if the current anticipated level of habitat loss is exceeded, we fully expect the level of incidental take to increase as well. Thus, incidental take will be monitored using the number of acres/miles provide in Table 7 below.

Table 7. Management activities causing habitat modification rising to the level of take over ten years.

Activity	Measure
Permanent Road Construction & Reconstruction	392 acres
Temporary Road Construction	146 acres
Skid Trails and Log Landings	740 acres
Utility Development	50 acres
Fire Lines	750 miles*
*2005 BO identified 74 miles of fireline construction; the figure was corrected to read 750 miles after Fish and Wildlife Service concurrence in 2007.	

We have monitored the management activities that could cause habitat modification that may rise to the level of take during implementation of the 2006 Forest Plan (USDA Forest Service 2008).

Activity	Anticipated Level of Activity (during first decade of Forest Plan)	Cumulative Amount Currently Planned	Cumulative Amount Implemented
Permanent Road Construction and Reconstruction (acres)	392	38.88	0.61
Temporary Road Construction (acres)	146	9.03	0
Skid Trails and Landings (acres)	740	199.8	7.0
Utility Corridors (acres)	50	0	0
Firelines (miles)	750	63.56	4.1

We have not knowingly, and to the best of our knowledge have not unknowingly, removed any occupied roost trees during implementation of the 2006 Forest Plan. With the continued implementation of Forest-wide standards and guidelines, we do not expect this trend to change.

It is not known yet if humans may be a factor in the spread of WNS. There are no caves on the WNF, so recreational caving is not an issue. In general, abandoned underground coal mines are not accessed by the public. However, there are a few mines with large

entrances where there is a history of people entering the abandoned mine. A total of 12 of these mine entrances have been gated to protect bats from human disturbance. The Priority III Indiana bat hibernaculum has been gated; access is limited to Forest Service employees and partners engaged in bat conservation activities.

Findings

A careful examination of the current information referenced and the background information shows the Forest Service considered impacts to forest bats in preparing the Environmental Impact Statement for the 2006 Forest Plan. However, diseases were not considered a major threat at that time, and WNS was unknown. Until such time as causal factors and effective treatments are identified, the Forest Service will continue to protect the known hibernaculum and fall swarming sites and manage summer habitats on the WNF to provide high quality habitat that will help all bat species find adequate food, cover, roost sites, water, and other needs to survive and successfully reproduce.

The WNF staff will work closely with the Ohio Division of Wildlife and U. S. Fish and Wildlife Service to monitor the Priority III hibernaculum and other underground mines for the presence of WNS. The WNF staff will also work with the U. S. Fish and Wildlife Service to keep abreast of any spread of WNS towards Ohio.

Determination

It is our determination that the recent discovery of WNS that is currently only known from New York, Vermont, Massachusetts and Connecticut is not significant new information that requires supplementation of the Environmental Impact Statement prepared for the 2006 Forest Plan or the environmental analysis of any ongoing project for the following reasons:

1. This Environmental Impact Statement for the 2006 Forest Plan was prepared in 2005 and was based upon the best available scientific information.
2. The discovery of the WNS does not present new environmental effects or otherwise alter the analysis of effects as set forth in the Environmental Impact Statement for the 2006 Forest Plan.
3. The environmental analysis of ongoing site specific decisions as well as cumulative effects disclosure in the programmatic Environmental Impact Statement for the 2006 Forest Plan were taken into the account in making this determination.
4. The discovery of the WNS in a distant State does not present a seriously different picture with regard to the environmental effects of implementing the Forest Plan on the WNF.

5. We have considered the range-wide status of Indiana bats and other affected species, as well as the population information for the planning area in reaching this determination. We have contacted biologists with the U.S. Fish and Wildlife Service and Ohio Division of Wildlife and sought their input.

It is our determination that the recent discovery of WNS that is currently only known from New York, Vermont, Massachusetts and Connecticut is not significant new information that requires a Forest Plan amendment at this time for the following reasons:

1. The WNS has not been found in Ohio or adjacent states. The nearest known occurrence is approximately 400 miles from the WNF proclamation boundary.
2. Known Indiana bat hibernacula on the WNF are already protected from human disturbance, eliminating the potential for humans to spread WNS into the WNF Priority III hibernaculum.
3. As a precautionary measure, the U. S. Fish and Wildlife Service has implemented decontamination procedures for summer mist netting and cave/mine visitation (S. Selbo, U.S. Fish and Wildlife Service, pers. comm.).
4. Prior to conducting bat surveys, we review our bat survey protocols with the U. S. Fish and Wildlife Service to ensure the protocols incorporate current methodologies.
5. We have consulted with the Forest Service's R8 and R9 Regional Office Threatened and Endangered Species Biologists (Dr. Tommy Parker and Dennis Krusac) on the range-wide implications of WNS and they support our findings.
6. We have complied with monitoring requirements in the 2005 Biological Opinion for the 2006 Forest Plan. Five management activities are to be monitored because implementation could rise to the level of take. We are well below the limits of anticipated activity and reported this in the 2007 WNF Annual Monitoring and Evaluation Reports. We have not knowingly, and to the best of our knowledge have not unknowingly, removed any occupied roost trees during implementation of the 2006 Forest Plan. With the continued implementation of Forest-wide standards and guidelines, we do not expect this trend to change. We are following all Forest Plan direction related to protection of known Indiana bat hibernacula and known fall swarming sites. The stable to increasing population of Indiana bats in the Priority III hibernaculum may be an indicator of the success of our protection efforts.
7. There is no consensus yet from experts as to what causes WNS, how it spreads, or how to prevent it. Until this information is available, it is premature to amend the Forest Plan, based on a lack of information.
8. The viability of plant and animal communities on the WNF was of paramount importance during the development of the 2006 Forest Plan. The best available scientific information was used in the development of the 2006

Forest Plan direction that ensures the protection of bats and their habitat. Recovery of the Indiana bat was a key consideration. The direction pertaining to the Indiana bat in the 2006 Forest Plan has been reviewed and found to be in line with agency draft recovery plan objectives, and promotes the conservation of non-listed forest bat species, in the light of the WNS information currently available to the ID team.

9. Monitoring data shows that Indiana bat populations are stable to increasing on the WNF.

We conclude based upon the information presented in the Forest Plan, Environmental Impact Statement, Record of Decision, planning record, and recent bat monitoring that a correction, supplement, or revision to the environmental documentation for the 2006 Forest Plan or an amendment of the 2006 Forest Plan is not necessary at this time. If WNS appears in Ohio, we will revisit this finding in the light of new information that may be available at that time.

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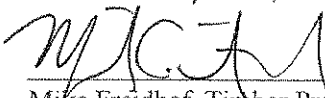
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Review of New Information Analysis Prepared by ID Team Members:

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	<u>5/28/08</u>
Bob Gianniny, Forest Planner, NEPA/Appeals and Litigation Coordinator	Date

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Mike Freidhof, Timber Program Manager	Date

	<u>5/28/08</u>
Katrina Schultes, Watershed Team Wildlife Biologist	Date